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## [611] "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue"
## [621] "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue"
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## [691] "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue"
## [701] "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue"
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## [711] "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue"
## [721] "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue" "blue"
```

A Lindenmayer system (or L-system) is a set of rewrite rules. When these rules are iterated multiple times, we can get complex results from rather simple rules. For example:

- Start
  - A
- Rules
  - A → AB
  - B → A
- Iterations:
  1. A
  2. AB
  3. ABA
  4. ABAAB
  5. ABAABABA
  6. ABAABABAABAAB

It might help to see this spaced out...

```
5. A  B  A  A  B  A  B  A
6. AB A  AB AB A  AB A  AB
```

Practice

- Start
  - A
- Rules
  - A → BA
  - B → AB
- Write the first 5 iterations of this L-system:

When these letters correspond to drawing commands (like move forward, turn 15°, or go back to last saved spot), we can get fractals.